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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* KLAUS SCHULTES, MICHAEL WICKER, PETER KEMPF,  
WERNER HOSS, KLAUS ALBRECHT, URSULA GOLCHERT, and  
STEFAN NAU

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Appeal 2010-005237  
Application 10/575,929  
Technology Center 1700

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Before BRADLEY R. GARRIS, PETER F. KRATZ, and  
MARK NAGUMO, *Administrative Patent Judges*.

KRATZ, *Administrative Patent Judge*.

DECISION ON APPEAL<sup>1</sup>

This is a decision on an appeal under 35 U.S.C. § 134 from the  
Examiner's non-final Office action dated February 12, 2009 rejecting claims

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<sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the "MAIL DATE" (paper delivery mode) or the "NOTIFICATION DATE" (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

24-30 and 32-47. The claims have been twice rejected. We have jurisdiction pursuant to 35 U.S.C. § 6. An Oral Hearing was conducted on March 10, 2011.

Appellants' invention is directed to: (1) a polymer mixture said to be useful for making matt-injected molded parts, such as parts for an automobile exterior, household appliances, etc; and (2) parts made from the polymer mixture (Spec. 3, ll. 35-37 and 40, ll. 17-23). The polymer mixture comprises: (1) a polymer matrix including one or more particular copolymers and having a specified softening point; (2) an impact modifier based on crosslinked poly(meth)acrylates that is not covalently bonded to the polymer matrix; and (3) plastic particles composed of crosslinked polymers based on certain particular polymers, which particles are of a specified median particle size range (Spec. 4, ll. 1-19). The polymer mixture can further include additives, auxiliaries, and/or fillers (Spec. 4, ll. 21-24). The polymer mixture is said to be composed such that if a test specimen were injection molded therefrom it would be characterized by several identified properties, such as roughness values, gloss, and Vicat softening point.

Claim 24 is illustrative and reproduced below:

24. A polymer mixture, comprising:

a) a polymer matrix which consists essentially of:

i) a (meth)acrylate (co)polymer with a Vicat softening point (ISO 306-B50) of at least 104 °C; or

ii) a mixture of (meth)acrylate (co)polymers with a Vicat softening point (ISO 306-B50) of at least 104 °C; or

iii) a (meth)acrylimide (co)polymer; or

iv) mixtures of a (meth)acrylimide (co)polymer (iii) with (i) or (ii);

b) an impact modifier which is based on crosslinked poly(meth)acrylates and which is not covalently bonded to the polymer matrix a);

c) from 1 to 15 % by weight of plastics particles composed of crosslinked polymers based on polymethyl methacrylate, on polystyrene and/or on polysilicones, with a median particle size in the range from 1 to 30 µm,

wherein a), b) and c) give a total of 100 % by weight, and

wherein the polymer mixture may also comprise conventional additives, auxiliaries and/or fillers, and a test specimen injection-moulded from the polymer mixture simultaneously has the following properties:

a roughness value R<sub>z</sub> to DIN 4768 of at least 0.7 µm;

a gloss (R 60°) to DIN 67530 of at most 40; and

a Vicat softening point (ISO 306-B50) of at least 90 ° C.

The Examiner relies on the following prior art references as evidence in rejecting the appealed claims:

Suetterlin	4,513,118	Apr. 23, 1985
Albrecht	4,833,221	May 23, 1989
Kress	4,895,898	Jan. 23, 1990
Parker	5,252,667	Oct. 12, 1993
Lichtenstein	5,621,028	Apr. 15, 1997
NieSsner	2001/0007890 A1	Jul. 12, 2001
Rhein	EP 0691351 A1	Jan. 10, 1996

The Examiner maintains the following grounds of rejection:

Claims 24-26, 28-31, 33-40, and 42 are provisionally rejected under the judicially created ground of obviousness-type double patenting over claims 1-3 and 6-12 of co-pending Application No. 11/813,946.<sup>2</sup> Claims 24, 25, 30, 32, 35, 37, 39, and 42-46 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kress in view of Lichtenstein. Claim 41 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kress in view of Lichtenstein, and Parker. Claims 24-26, 28, and 29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Albrecht in view of Suetterlin, and Lichtenstein. Claims 33 and 36 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kress in view of Lichtenstein, and Albrecht. Claims 34 and 38 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kress in view of Lichtenstein, and Suetterlin. Claim 40 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kress in view of Lichtenstein, Suetterlin, and NieSsner. Claims 24, 26,

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<sup>2</sup> The Examiner's provisional obviousness-type double patenting rejection over claims 1-3 and 6-12 of co-pending Application No. 11/813,946 is considered moot. This is because of amendments made to claim 1 of co-pending Application No. 11/813,946 as a result of the filing of a Request for Continued Examination along with a request to enter a previously non-entered amendment. This amendment process occurred subsequent to the briefing and Examiner's Answer filed in this appeal. In particular, the claims of the co-pending application were amended to include the limitations from dependent claim 4 (now cancelled), among other things, in independent claim 1 of the co-pending Application. However, the Examiner, for whatever reason, did not extend the provisional obviousness-type double patenting rejection of the claims of this application to being an obviousness-type double patenting rejection over then-pending claim 4 of the co-pending application. We decline to consider such a rejection in the first instance on appeal.

27, and 47 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rhein in view of Suetterlin and Lichtenstein.

We affirm the stated prior art rejections for substantially the reasons set forth in the Examiner's Answer. We offer the following for emphasis and completeness.

#### Rejections over Kress

In all of the Examiner's prior art rejections relying on Kress as one of the applied references, a claim construction issue arises and relates to Appellants' claim term "consists essentially of" as it appears in independent claim 24 with respect to the polymer matrix component of the claimed polymer mixture.<sup>3</sup> In this regard and as a review of claim 24 reveals, the claimed polymer mixture further includes an impact modifier component and a plastics particles component.

This claim construction issue is principally addressed by Appellants under the umbrella of the Examiner's rejection of claims 24, 25, 30, 32, 35, 37, 39, and 42-46 over Kress in view of Lichtenstein (App. Br. 7-8; Ans. 4).<sup>4</sup>

As background to this argument, it is important to note that the Examiner relies on Kress for teaching or suggesting at least a polymer mixture that includes components corresponding to Appellants' polymer

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<sup>3</sup> Claim 24 is the sole independent claim subject to any of the Examiner's rejections utilizing the teachings of Kress.

<sup>4</sup> Appellants argue the commonly rejected claims together as a group. Hence, we select claim 24 as the representative claim for the first stated prior art rejection over Kress and Lichtenstein. Also, we take as being correct the list of the rejected claims, by claim number, as presented by the Examiner, notwithstanding the different list of the claims alleged to be subject to this rejection as presented by Appellants (Ans. 4; App. Br. 7).

matrix and impact modifier components as embraced by representative claim 24 (Ans. 4-5). As pointed out by the Examiner (Ans. 5 and 15), Kress teaches or suggests the use of a molding mixture that includes one or more copolymers formed from methyl methacrylate, styrene, and/or maleic anhydride (components C and D) that the Examiner found would correspond to the claimed matrix component (a) of representative claim 24 (Kress, col. 1, ll. 24-49). Like Appellants' polymer mixture, Kress teaches that the molding material thereof is useful for injecting molding to make components for the automotive industry and other shaped articles useful in other applications (Kress, col. 2, ll. 3-7 and col. 6, l. 66 – col. 7, l. 10). The Examiner relies on a graft polymer constituent (B) of Kress to satisfy the representative claim 24 requirement for an impact modifier (Ans. 4-5). Polycarbonate polymer is present in the molding mixture of Kress (col. 1, ll. 7-12).

The Examiner further relies on Lichtenstein in combination with Kress in asserting the obviousness for one of ordinary skill in the art at the time of the invention to add plastic particles, as claimed, to the injection moldable polymer mixture of Kress given the teachings of Lichtenstein with respect to employing such plastic particles as light scattering agents together with polymethacrylate resins in forming molded articles (Ans. 6).

Appellants argue that the aforementioned transitional term ("consists essentially of") excludes polycarbonate(s), such as employed by Kress, from being present as part of the polymer matrix of the polymer mixture of claim 24 (App. Br. 7). However, as correctly urged by the Examiner, Appellants have not substantiated this argument by furnishing technical reasoning or evidence to establish that the presence of polycarbonate, of the type and

amount taught by Kress, would have materially affected the basic and novel characteristics of Appellants' polymer mixture. In this regard, it is well settled that the term "consisting essentially of" is interpreted as including not only those ingredients specifically recited, but also those that do not materially affect the basic and novel characteristics of a claimed invention. *PPG Indus. v. Guardian Indus. Corp.*, 156 F.3d 1351, 1354 (Fed. Cir. 1998); *In re Herz*, 537 F.2d 549, 551-52 (CCPA 1976). However, the burden is on Appellants to show what the basic and novel characteristics are and how they would be materially changed by the ingredient of the reference sought to be excluded from inclusion. See *In re De Lajarte*, 337 F.2d 870, 873-74 (CCPA 1964); *Ex parte Hoffman*, 12 USPQ2d 1061, 1063-64 (BPAI 1989). Appellants have not timely presented any such evidence. Attorney's arguments are insufficient to take the place of evidence or expert testimony. See *In re Scarbrough*, 500 F.2d 560, 566 (CCPA 1974).

Consequently, this argument is not persuasive.

Appellants contend that Kress employs a graft copolymer system (component B) whereas the claims (see representative claim 24) rejected over Kress and Lichtenstein require an impact modifier comprising a crosslinked poly(meth)acrylate which is not covalently bonded to the polymer matrix (meth)acrylates (App. Br. 7-8). However, for reasons set forth by the Examiner (Ans. 16), the latter argument is not persuasive that Kress does not teach or suggest a polymer mixture component that comprises an impact modifier, as embraced by representative claim 24.

Appellants comment that components C and D of Kress do not teach Appellants' claimed components b and c (see representative claim 24; App. Br. 8). This argument is off the mark as the Examiner relies on component

B of Kress and Lichtenstein for teaching or suggesting the aforementioned features b and c of representative claim 24, respectively (Ans. 4-6).

Appellants argue that Kress does not evidently teach or suggest a molding mixture that would yield an injection molding product having roughening, gloss, and softening point values corresponding to those set forth in representative claim 24. For reasons set forth by the Examiner; however, it would have been reasonable to expect that a molding product made from the molding mixtures taught or suggested by Kress and Lichtenstein would have values for these parameters within the claimed ranges given the correspondence in materials (Ans. 6). Thus, it is appropriate to shift the burden of producing evidence to Appellants to show that a molding composition made in accordance with Kress's teachings together with the added plastic particles of Lichtenstein would not enjoy the claimed values of roughness, gloss, and Vicat softening point. This, Appellants have not done.

In separate rejections of several of the dependent claims wherein Kress and Lichtenstein are employed as evidence of obviousness, the Examiner furnishes additional evidence; (1) Parker in rejecting claim 41, (2) Albrecht in rejecting claims 33 and 36; (3) Suetterlin in rejecting claims 34 and 38, and Suetterlin and NieSsner in rejecting claim 40 (Ans. 6-11). The limited additional argument furnished by Appellants with respect to certain of these separately rejected dependent claims is not persuasive of harmful error in any of these separately stated obviousness rejections for reasons expressed by the Examiner (App. Br. 8, 9, 11, and 12; Ans. 6-11). For example, in arguing against the Examiner's obviousness rejection of claim 34, Appellants do not explain why the combined teachings of Suetterlin,

Kress and Lichtenstein would not have suggested to one of ordinary skill in the art the use of Suetterlin's core/shell impact modifier together with Kress' copolymer formed from methyl methacrylate and the plastic particles of Lichtenstein in a moldable polymer mixture for the reasons given by the Examiner (App. Br. 12; Ans. 6, 9, and 10).

It follows that we shall affirm the Examiner's rejections utilizing Kress as part of the relied on evidence of obviousness.

Rejections over Albrecht/ Rhein, each in view of Suetterlin and Lichtenstein

The Examiner has separately found that each of Albrecht and Rhein teaches or suggests a moldable polymer composition including a copolymer made from methyl methacrylate monomer that corresponds to the claimed polymer matrix component, including possessing a Vicat softening point satisfying the claim proviso (Ans. 7 and 12). In each of these stated rejections, the Examiner relies on Suetterlin for teaching or suggesting the claimed impact modifier and Lichtenstein for the claimed plastic particles component, as well as providing reason for the use thereof in the moldable compositions of Albrecht or Rhein (Ans. 7, 8, and 12-13). Appellants argue the claims subject to each of these rejections together as a group (App. Br. 9-13). Thus, we select claim 24 as representative.

Appellants urge that one of ordinary skill in the art would not have been motivated to employ the impact modifier of Suetterlin as a component of the moldable composition of Albrecht and that the plastic particles of Lichtenstein are of secondary importance (App. Br. 10-11). However, the Examiner has furnished a reasoned basis for one of ordinary skill in the art to add both the impact modifier of Suetterlin (increased impact strength and

reduced susceptibility to stress whitening) and the light scattering plastic particles of Lichtenstein (translucency) to the copolymer molding material of Albrecht that Appellants' arguments do not persuasively refute (Ans. 7, 8, 12, 13, and 17). As noted by the Examiner, Suetterlin teaches that their impact modifier is useful with methyl methacrylate-containing molding compounds (Ans. 8; Suetterlin, col. 6, ll. 27-44).

As for the argued and claimed roughness, Vicat softening point, and gloss characteristics of the polymer mixture including the impact modifying agent, plastic particles, and polymer matrix, the adduced evidence suggests a polymer mixture that reasonably corresponds to the claimed mixture in composition such that it is reasonable to shift the burden of production to Appellants to establish that the modified Albrecht composition would not be expected to possess such product mixture characteristics.

Concerning the separate rejection over Rhein, Suetterlin, and Lichtenstein, Appellants do not dispute the Examiner's determination that Rhein teaches or suggests a thermoplastic acrylic molding material corresponding to the requirements for a polymer matrix (a) as set forth in representative claim 24. Rather, Appellants generally argue the Examiner's proposed combination of Suetterlin and Lichtenstein with Rhein (App. Br. 13). Those arguments are not persuasive for the corresponding reasons discussed above respecting the rejection over Albrecht, Suetterlin and Lichtenstein, and for the reasons set forth by the Examiner (Ans. 12, 13, and 17).

It follows that we shall sustain these rejections, on this appeal record.

#### CONCLUSION/ORDER

The Examiner's decision to reject claims 24, 25, 30, 32, 35, 37, 39, and 42-46 under 35 U.S.C. § 103(a) as being unpatentable over Kress in view of Lichtenstein; to reject claim 41 under 35 U.S.C. § 103(a) as being unpatentable over Kress in view of Lichtenstein, and Parker; to reject claims 24-26, 28, and 29 under 35 U.S.C. § 103(a) as being unpatentable over Albrecht in view of Suetterlin, and Lichtenstein; to reject claims 33 and 36 under 35 U.S.C. § 103(a) as being unpatentable over Kress in view of Lichtenstein, and Albrecht; to reject claims 34 and 38 under 35 U.S.C. § 103(a) as being unpatentable over Kress in view of Lichtenstein, and Suetterlin; to reject claim 40 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kress in view of Lichtenstein, Suetterlin, and NieSsner; and to reject claims 24, 26, 27, and 47 under 35 U.S.C. § 103(a) as being unpatentable over Rhein in view of Suetterlin and Lichtenstein is affirmed.

On this appeal record, the Examiner's provisional obviousness-type double patenting rejection over claims 1-3 and 6-12 of co-pending Application No. 11/813,946 is deemed moot.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

kmm

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